Lesson 30 - Sugars And Other Sweeteners May Be Worse Than Bad

- 1. Introduction
- 2. Refined Sweeteners
- 3. Sugar: Where Does It All Come From?
- 4. The Cousins of Sugar
- 5. Some Final Thoughts about Sugars
- 6. Questions & Answers
- Article #1: Why Honey Is A Harmful Food By T.C. Fry
- Article #2: More About Honey By T.C. Fry
- Article #3: Blackstrap Molasses: Super Junk Food By T.C. Fry

1. Introduction

1.1 The Sweet Drug

It's a white crystalline powder. It was originally smuggled in from the Far East and was sold at the equivalent of $12,000 per pound. Its early users soon became addicted. Gradually its use spread throughout the population. At first it was a luxury for the rich, but gradually it was produced in large quantities at cheaper prices so that anyone could afford it.

The health of all its users deteriorated rapidly. Not only did they suffer physically from sugar use, but their mental and emotional states were disturbed. They became irritable, sickly, obese and borderline schizophrenic.

The white powder was not cocaine or heroin—it was sugar.

Today the average American eats his or her weight in sugar every year. The typical American eats *50 teaspoons* of sugar each day, most of it hidden in processed and packaged foods. Probably more health problems can be traced to sugar use than any other single item eaten today.

1.2 Your Sweet Tooth

How did America's deadly love affair with sugar begin? Why is it so bad for you? Most people shrug off the warnings about sugar and continue to use it. "I have to feed my sweet tooth," they say. "I crave sweets. It must be natural or I wouldn't want them."

And to a certain extent, they're right. It is natural to desire sweet foods. You should feed your sweet tooth, but you should eat the foods naturally sweet in wholesome sugars—fresh fruits. In a natural state, our diet would consist of a large amount of fresh fruits and some vegetables. In nature our sweet tooth would be well fed.

However, in the last two hundred years *refined* sugars have gradually replaced the *natural* sugars in our diet. Instead of grapes and apples, we eat corn syrup, sacharin and cyclamates to satisfy our natural

desire for sweet fare.

2. Refined Sweeteners

Refining means to make "pure" by a process of extraction or separation. Sugars are refined by taking a natural food which contains a high percentage of sugar, and then removing all elements of that food until only the sugar remains.

White sugar is commonly made from sugar cane or sugar beets. Through heating and mechanical and chemical processing, all vitamins, minerals, proteins, fats, enzymes and, indeed, *every* nutrient is removed until only the sugar remains.

Sugar cane and sugar beets are first harvested and then chopped into small pieces, squeezing out the juice which is then mixed with water.

This liquid is then heated and lime is added. Moisture is boiled away, and the remaining fluid is pumped into vacuum pans to concentrate the juice. By this time, the liquid is starting to crystallize and is ready to be placed into a centrifuge machine- where any remaining residues (like molasses) are spun away.

The crystals are then heated to the boiling point and are passed through charcoal filters. After the crystals condense, they are bleached snow-white, usually by the use of cattle bones.

During these refining processes, 64 food elements are destroyed. All the potassium, magnesium, calcium, iron, manganese, phosphate, and sulfate are removed. The A, D, and B vitamins are eliminated. Amino acids, vital enzymes, unsaturated fats, and all fiber are gone.

To a lesser or greater degree, all refined sweeteners such as corn syrup, maple syrup, etc. undergo similar destructive processes. Molasses are the chemicals and deranged nutrients that are a byproduct of sugar manufacture.

2.1 What Happens When You Eat Refined Sugars

When you eat a refined carbohydrate like sugar, the body must take vital nutrients from healthy cells to metabolize incomplete food. Sodium, potassium, magnesium, and calcium are drawn from various parts of the body to make use of the sugar. Often so much calcium is used to neutralize the effects of sugar that the bones, which are the body's storehouse of this mineral, become osteoporatic due to the withdrawn calcium. The teeth, too, are likewise affected and they lose their components until decay occurs and hastens their loss.

When sugar enters the stomach, glutamic acid and other B vitamins are denied to the body. The loss of these specific vitamins results in a confused mental state and a tendency to become sleepy during the day.

Since refined sugars are removed from their natural sources (which contain the necessary nutrients for their metabolism), sugar-eating causes the body to deplete its own stores of various vitamins, minerals and enzymes. *Not only does sugar provide no needed nutrients, it causes the body to rob itself of already present vital elements*. Sugar is both an imposter and a thief.

If the body is lacking the vital nutrients used to metabolize sugar, the result is failure to properly handle and expel poisonous residues such as lactic acid. These wastes accumulate through the brain and nervous system, which in turn accelerates cellular death. The bloodstream becomes overloaded with

waste products, including incompletely metabolized sugar, and symptoms of carbonic poisoning result.

All of the untoward effects of refined sugar metabolism play havoc with the mind and emotions as well as the body. Research studies have demonstrated a link between juvenile criminal behavior and sugar consumption. A majority of the nation's prisoners are "sugarholics" and erratic emotional outbreaks often follow a sugar binge. As early as the 1940's, Dr. John Tintera discovered a relationship between sugar-eating and schizophrenic behavior, as well as other mental illnesses. The effects of sugar-induced depression are well documented in William Dufty's book *Sugar Blues*.

The endocrinologist John W. Tintera was very emphatic in describing the relationship between sugar and the whole person. He said: "It is quite possible to improve your disposition, increase your efficiency, and change your personality for the better. The way to do this is to avoid refined sugar in all forms and guises."

2.2 The Sugar Diseases

Sugar usage has been associated with so many different diseases and metabolic disturbances that it would be difficult to discuss them all in this lesson. However, four of the more common ailments related to sugar consumption can be briefly covered in this lesson. The reader interested in finding out more about the relationship between sugar and disease should consult the book *Sweet and Dangerous* by Dr. John Yudkin.

2.2.1 Tooth Decay

The connection between sugar and tooth decay is probably better known than any other hazard of sugar consumption. Sugar eating contributes to tooth decay because its metabolism by the body requires extra calcium to be drawn from the bones and teeth, thereby weakening the teeth and making them susceptible to decay. Not only white sugar, but all refined carbohydrates have been implicated as a cause of tooth decay.

2.2.2 Obesity

Sugar makes you fat because it supplies only calories, thus causing the body to overeat to obtain its needed nutrients. When you fill up on foods high in sugar, the body must have additional foods (and consequently calories) to get the nutrients it needs.

One pound of apples contains 263 calories, whereas one pound of candy typically has about 1800 calories. A chocolate bar has eight times as many calories as does a banana, ounce for ounce.

Fruit also supplies fiber and bulk to help make you feel "full." Sugar is fiber-free; you'll never experience a sense of physical fullness even after eating two cups of sugar. Consequently, you can overeat on sugar very easily.

If Americans would just eliminate sugar and all refined sweeteners from their diets, they would experience dramatic weight loss.

2.2.3 Diabetes and Hypoglycemia

Diabetes is the failure of the pancreas to produce adequate insulin when the blood sugar rises. Concentrated amounts of sugar cause a rapid rise in blood sugar. Eventually the pancreas can be worked to exhaustion trying to compensate for the unnaturally large amounts of sugar introduced into the body by way of white sugar and other concentrated sweeteners.

In a study of 16,000 people in the Mideast, Dr. Aharon Cohen discovered that among a population who had no past history of diabetes in themselves or in their immediate families, a significant percentage of them developed the disease after they introduced white sugar into their traditional diets.

Sugar-eating has also been associated with another metabolic disease, hypoglycemia. Hypoglycemia occurs when the body overreacts to the amount of sugar in the blood, and too much insulin is released. This condition often results when people have eaten concentrated amounts of sugar on a regular basis, and have "fooled" the pancreas into over-responding too often to the sugar level in the blood. Refined sugars are a no-no for hypo-glycemics and diabetics.

2.2.4 Heart Disease

In countries where there is a high amount of sugar consumption, there is also a high incidence of heart disease. The theory behind this is that high amounts of sugar cause the insulin in a body to convert blood glucose (sugar) into fatty acids and triglycerides (a kind of blood fat). People on a high-sugar diet develop a significantly higher level of fats in their blood than those who eat no sugar. This high fat content in the blood is believed to be related to the development of atherosclerosis. Sugar may also contribute to heart disease by increasing the blood pressure-raising effects of a high-salt diet.

2.3 Sweet Lies: The Sugar Defenders

Since sugar is a totally useless, destructive, addictive drug that is directly responsible for many debilitating diseases, why is its use tolerated or allowed? Our government shows little sympathy for the pushers of cocaine, heroin, amphetamines and other white powder drugs. Why then are food manufacturers allowed to dose their products with a sweet white poison that kills more people than all the illegal drugs combined?

Sugar is a cheap additive and food filler. As prices of raw food materials have increased, manufacturers of convenience and packaged foods add more and more sugar as an inexpensive extender. During the 1960's, for instance, the amount of sugar used in processed foods *doubled*.

Clearly there is a strong economic basis for putting so much sugar in packaged foods. The food processors and sugar industry have sought to justify this practice by hiring various spokesmen who defend sugar as an acceptable food. Hundreds of thousands of dollars are spent each year in a propaganda effort by the food and sugar industry to defend and promote the use of this refined sweetener. Advertising alone can sometimes convince the public that a harmful substance, like sugar, might have some legitimate use in foods.

Even twenty-five years ago, I remember seeing an ad for Baby Ruth candy bars that stated, "For QUICK ENERGY eat Baby Ruth candy! It's full of dextrose!" Dextrose is simply another refined sugar made from corn starch, no better than white sugar. Sugar has always been defended as a food on one basis alone: it is a "fast fuel"; it gives you a "surge of energy" and "needed calories."

Sugared cereals were promoted for breakfast a few years ago because they were "full of instant energy to start your day." Finally the government cracked down on the manufacturers for so unashamedly pushing their sugar products as something that might be beneficial. Sugar has always been defended and promoted on the fact that it has calories. That it does, and absolutely nothing else.

Consuming these nutrient-empty calories is dangerous—it's like racing a car on high-octane gas without any oil or water in the vehicle. You'll go fast for sure (ever notice a person who is jumped-up on sugar?), but you'll burn out in a very short time.

Still, sugar-cereal manufacturers, fast-food operators, and the processed food industry have to show a profit, and if it's by deceiving the public, well they can always find a person with credentials eager to sell their services.

Consider these amazing statements by Dr. Frederick Stare of the Harvard School of Nutrition:

"Calories are energy, and I would recommend that most people could easily double their sugar intake daily. Sugar is the cheapest source of food energy, and I predict it will become much more prevalent in the diets of the world. People say that all you get out of sugar is calories, no nutrients. Like many foods,

I expect it to be fortified in the future. There is no perfect food anyway, not even mother's milk."

Can you picture this someday? "NEW! Fortified sugar, with vitamins A, B and C added! Better than Mother's Milk!"

Readers should be aware that the Sugar Foundation regularly contributes large amounts of money to Dr. Stare's department of nutrition at Harvard University.

There will always be sweet lies about sugar and refined sweeteners. There will always be defenders who can be had for a price. But the truth remains: sugar will kill you just as surely as anything you can eat.

Out of all this sugar, 20% of it is consumed in soft drinks alone: Many breakfast cereals are 40% to 50% sugar. The following table can give you a general idea of how much sugar is "hidden" in food.

3. Sugar: Where Does It All Come From?

3.1 Hidden Sugars In The Diet

Most people do not know that they regularly eat large amounts of sugar. "I never add sugar to my food or drinks," they say, "so how can I be getting that much sugar?"

Actually, over three-fourths of the 128 pounds of sugar most people eat each year is in processed foods. You never see it and you have no control over the amounts added. Sugar is used in packaged foods to prevent spoilage, to retain moisture, to maintain texture and appearance, and, of course, as a sweetener. It's an all-around, cheap filler.

So how much "hidden" sugar is in the American diet? About one-third of a pound every day or about 600 calories. One-fifth or more of the total food intake each day comes from refined sugars.

Food	**How Many Teaspoons of Sugar?**
Cherry pie (1 slice)	14
Soft drinks (16 ounces)	10
Chocolate milk (1 cup)	6
Canned peaches (2 halves)	4
Jelly (1 tablespoon)	3
Candy bar	18
Fudge (1 square)	4

Chewing gum (1 stick)	.5
Doughnut (1)	4
Cake (1 slice)	15
Cookie (1)	1
Icecream (1 cup)	12

The foods in the preceding table are only some of the more well-known sugar-containing foods. Many processed and packaged foods, however, contain sugar, such as most canned vegetables, frozen fruits, breads, food mixes and additives, baby food, salad dressings, peanut butter, and almost any food sold on the grocery shelf.

Foods prepared in restaurants and fast food places also may contain high amounts of sugar. French fries, for example, are often soaked in a sugared solution before they are frozen and shipped.

3.2 How To Avoid Refined Sugars

So, how can you eliminate sugar from your life? Simple. Buy no processed or packaged foods, be careful when dining out, and never add it to any foods or drinks you prepare.

Don't worry about "healthful" substitutes—there aren't any. You don't need refined or unrefined sweeteners in any form. You don't need to gradually taper off or reduce your refined sugar intake. You can stop immediately, today, and suffer no withdrawal effects.

Sugar use is indefensible. Not only should it be avoided, but it never should have been introduced into the diet in the first place.

Although we have been discussing common white table sugar, there are several other refined and unnatural sweeteners and sugars that you should also eliminate for optimum health. Some are the more common "health" substitutes for white sugar, such as brown sugar, raw sugar and maple syrup. Some are the more recently introduced artificial sweeteners such as saccharin and cyclamates. Others are the close sugar-relatives, like dextrose and corn syrup. And one is that favorite food of health enthusiasts—honey. Let's now look at the other sweeteners in the diet and see how they are harmful to the body.

4. The Cousins of Sugar

Often in "health" food recipes, you'll see the use of *raw sugar* or *brown sugar* in place of white sugar. These two sugars have a bare minimal amount of vitamins and minerals—almost none, actually, but still more than white sugar. Brown sugar is just white sugar colored with a little molasses and raw sugar is simply white sugar that may be missing one of the many refining steps that all sugars go through. Another partially refined sugar is *turbinado sugar*.

All of these "cousins" are also sucrose—the same as white sugar, and the differences between all of them are so slight as to be indistinguishable. It's like arguing what will get you the least drunk—whiskey

or scotch. The use of these sugar cousins is usually confined to those people who already know better than to use white sugar in the first place, but they attempt to assuage their guilt by using these equally harmful substitutes.

4.1 Sugar From Corn: Dextrose and Corn Syrup

Made from cornstarch, *dextrose* (also known as glucose) is a leading contributor to the adulteration of food. Dextrose is mixed into a wide variety of processed foods. As early as the 1920's, Dr. Harvey Wiley stated that flooding the stomach with dextrose creates an artificial situation that would require an additional half-dozen pancreases for our body to cope with it. The sugar refining interests influenced Congress so that dextrose (or glucose) was allowed to remain a legal food additive.

The liquid sugar form made from cornstarch is called *corn syrup*. It, too, is a widely popular food additive used in items such as frozen vegetables, pancake syrups, wines, and even aspirins.

Corn syrup is usually added along with salt, sodium citrate, citric acid, algin derivative, and artificial flavorings and colors, so the consumer gets a triple-deadly dose of food additives.

4.2 Fructose—the Sugar From Fruits

Fructose is commonly known as "fruit sugar" and is the predominant sugar in fresh and dried fruits. Along with grape sugar, dextrose, and levulose, fructose is classified as a monosaccharide carbohydrate with the chemical formula $C_6H_{12}O_6$.

Fructose is a natural sugar, and it is found in many fruits along with wholesome nutrients such as vitamins, minerals, enzymes, etc. It is the energy component of fruits, and the liver converts it to *glucose* which is then either used for immediate fuel needs or is stored as *glycogen* for later energy use.

For each molecule of fructose, the body forms one molecule of glucose, and thus the energy needs of the body can be efficiently met by natural fruit sugars.

Fructose when it is consumed in *whole fruits* is a wholesome fuel. When it is made into a *refined powder* or separated from the sucrose of which it is a part, fructose is a disruptive toxin.

In recent years, fructose has increasingly been refined and made into a fine white powder and sold as a "safe", sugar substitute. While fructose use is promoted because of its presence in fruits, it is no different from white sugar because it is refined from white sugar.

In its refined state, fructose is a concentrated and toxic carbohydrate that has been stripped of all vital nutrients. It is a fuel devoid of nutrients, and is certainly not "health promoting."

Refined fructose is very soluble and is absorbed by the mucosal cells of the intestinal tract at a rapid rate. This quick absorption fructose, without any co-existing nutrients, can cause the same harm as sucrose, or common white sugar.

Refined fructose intake can result in several toxic effects, such as: disrupted liver protein synthesis, acute hypoglycemia, elevation of blood fats, and general metabolic disturbances.

When you eat fructose along with other nutrients in the form of fruits, you are receiving a high-quality and complete body fuel. When refined and stripped of nutrients, "pure" fructose becomes a disruptive toxin in the body.

4.3 Maple Syrup

If it comes from a tree, it must be okay for you to eat, right? Wrong. While maple syrup comes from a natural source (like fructose and sucrose for that matter) and it does contain some nutrients, it still is a nutritionally unbalanced food. It undergoes high-heating and adulteration in its processing and manufacture.

Besides being concentrated and deadened by high heat, maple syrup may also be contaminated by paraformaldehyde which is used during the tapping process to destroy bacteria. Formaldehyde compounds are poisonous and certainly should not be eaten in food.

Maple syrup is rarely a pure food; other sugars and sweeteners may be mixed in and added without telling the consumer. Sugar, corn syrup, and other refined sugars can be used to stretch out the more expensive maple syrup. Maple syrup is not a pure and unprocessed product; high heating alone makes it inferior and undesirable in an optimum diet. The sugars present in the syrup have become concentrated beyond their natural strength by the introduction of heat in its manufacture. Maple syrup seems to be especially popular with vegans (people who eat no animal products, such as honey), however, they should be aware that maple syrup is still a refined sweetener that has no proper place in the human dietary.

4.4 Molasses

Molasses is another highly heated sweetener like maple syrup. This food item is discussed in detail in another lesson as an example of a "junk food" product, so we will not go into detail in this lesson about it. Its use is chiefly promoted because it is a concentrated source of minerals (usually iron); however, the same process which concentrates the minerals (high heat, etc.) also destroys them. Further, pesticides and chemicals used in growing and processing are concentrated in the product. It becomes a heated, dead food that is a storehouse of toxic chemicals as well as toxic minerals. In addition, the high-sugar content of molasses is caramelized. It is poorly handled by humans. Molasses has no benefits. It is pathogenic from other nutritive aspects.

4.5 Honey—How Healthy Is It?

What could be more natural than honey? Health seekers have sung its praises for years, and it is promoted as a beneficial, healing food. Is honey a perfect food, easily digested, and toxin-free as so many writers would have us believe?

Actually, honey is little better than most of the other refined sweeteners and sugars. True, it can be had with little processing and no heating, but does that make it a natural food for man? The truth is that honey contributes to tooth decay, obesity, diabetes, and other diseases that white sugar use has been linked with.

Honey is defended as a wholesome food because it has been used for a long period, much like milk and dairy products. Like milk, honey is a food that is produced by an animal to *feed its own species*. It is not a natural food for man—it is a natural food for bees.

Honey is produced by the bees modifying the nectar of flowers with formic acid produced within their bodies. The bees regurgitate the honey after mixing. Water is evaporated from the honey by air currents generated by the wings of worker bees. The nectar is usually vomited up several times before it is mixed enough with the bees' own preservative secretions.

The honey is also produced with various enzymes to meet the special needs of the bees themselves; consequently, the changes that occur in the production of honey are not amicable to man's metabolism.

Bees are often robbed of their food product and forced to live on sugared water by their keepers. Often, poison sprays such as carbolic acid and benzaldehyde are sprayed into the hives (and onto the honey) to chase the bees away so that they may be robbed.

Most commercial honey is heated, filtered and processed. Even bees cannot live on heated honey for long. If fed such honey, the bees sicken and die. Honey may also be adulterated with white sugar syrup, corn syrup and other additives, so honey is rarely the "pure" product it's advertised to be.

Honey is almost pure sugar and water. There is a minute amount of mineral material in honey, and it is

this mineral content that health enthusiasts point to as a justification for using honey instead of white sugar. This argument is faulty because the mineral content is so low that you would need to eat 200 tablespoons of honey a day to meet your calcium requirements, 91 tablespoons for your potassium needs, and 267 tablespoons to satisfy your phosphorous needs. Obviously honey has minimal nutritional value for humans.

Honey has also been shown to destroy teeth even faster than white sugar. A study at Oregon State University demonstrated that some honeys may contain cancer-causing substances that the bees have extracted from certain flowers. Other honeys have been associated with botulism, an often fatal form of food poisoning.

Honey is not for the health-seeker; indeed, it is not for any human being. Honey is not for the birds either—it's for the bees. They made it, let them eat it.

4.6 Sugars From Coal: Cyclamates and Saccharin

All the sweeteners discussed so far have been derived from plant sources either directly (corn syrup, white sugar, maple syrup) or indirectly (honey). Two popular sugar substitutes, however, come from coal-tar.

In 1879, a substitute for sugar was discovered that was 300 times as sweet as white sugar. Called *saccharin*, a pill the size of a pinhead can sweeten a cup of coffee.

In 1970, researchers at the University of Wisconsin reported a link between saccharin use and cancer of the bladder. Based upon this and other studies, the F.D.A attempted to ban the sweetener in 1977. A public uproar developed, however, because with the removal of saccharin from the market, there would be no way for diabetics and other people on a sugar-restricted diet to obtain concentrated sweeteners (or so the reasoning went). Congress therefore imposed a ban outlawing the removal of saccharin but required stores to post a notice indicating that products containing saccharin were sold there.

Needless to say, this artificial sweetener is dangerous enough to be banned, and should be avoided by ail people.

A relative of saccharin is a group of sweeteners known as *cyclamates*. Cyclamates were promoted in the 1950's as a way for obese Americans to satisfy their sweet tooth without paying the price in calories. Cyclamates are 30 times sweeter than sugar and had been manufactured as early as 1937.

By 1969, about 175 million Americans were consuming 20 million pounds of cyclamates every year. In the next few years, medical reports stated that injury to fetuses, diarrhea, and damage to kidneys, the liver, the intestinal tract, the adrenal glands, and thyroid could be traced to cyclamate use.

Cyclamates were finally banned in 1969, about 14 years after their harmfulness was first revealed. Unfortunately, the refined sugar products, equally dangerous in their own way, are still allowed to be sold. Perhaps in a few more years, an enlightened public will demand the removal of white sugar and other sweeteners from their foods as well.

5. Some Final Thoughts about Sugars

Why do human beings want sweet foods in the first place? What are some safe ways to satisfy our sweet tooth?

Dr. Gary Beauchamp of the University of Pennsylvania stated that our sweet taste has served us well in the course of evolution. Our sweet tooth allowed us to know when foods like fruits and berries were ripe and ready to eat. It guided us to the selection of naturally wholesome foods. Our sweet tooth and desire for sweet foods is perfectly natural and desirable.

In recent times, however, our sweet tooth has become perverted. Dr. Beauchamp says that now "we've separated the good taste from the good fun," and our sweet tooth is leading us astray with the introduction of refined and supersweet artificial sugars in the diet. Actually, refined sugars and the like achieved their stronghold first in countries where there was not an abundance of fresh sweet fruits. White sugar has served as a poor and dangerous substitute for fruits in climates where fruits were no readily available. Fortunately in today's world, we are now able to satisfy our sweet tooth naturally, but we've been deceived so long by the artificial and refined sugars that it takes some time to readjust our taste.

Once refined and artificial sweeteners are eliminated from the diet, you will gradually re-acquire your naturally discerning taste and avoid all such refined and unnatural sugars with little effort. They will cease to appeal to you as you re-discover the natural sweetness and goodness of fresh fruits.

Humans naturally seek to eat sweets. Thus the act of sweetening foods is to meet our biological adaptation to sweet fruits.

One of the foremost evils of using sweeteners is on the grounds of incompatible combinations. Anything sweet naturally does not require sweetening and anything that we sweeten is intrinsically incompatible with sweets.

We are not natural fat or oil eaters. We get this incidentally but sufficiently from our proper foods of fruits. We are not natural protein eaters. We obtain our needs incidentally but sufficiently from fruits. We are not starch eaters. We have a limited capacity to digest starches—a capacity that was developed very poorly—sufficient to handle starches incidental to fruit-eating. The ptyalin of the mouth is so poor in its digestive capabilities that it digests less than 5% of the starch. Final digestion of starch must be carried on with pancreatic amylase in the small intestine.

While simple sugars such as fructose and glucose require no digestion, sucrose must be broken down into these respective monosaccaride components before absorption can occur.

Mixed with fats, starches or proteins, all sugars, simple or more complex like sucrose, are an abominable combination. The sugars are held up while the more complex foods are being digested. They quickly ferment, forming vinegar and alcohol. This is toxic enough in itself but the digestion of the foods with which they! are mixed is then vitiated so that marked indigestion occurs.

There are no counts justifying the use of sweeteners. Our yen for our natural sweet fare should be sated with our *natural* sweet fare.

Remember: when you eat fruits, you not only satisfy your sweet tooth, but you supply the body with the finest fuel available along with a storehouse of valuable nutrients and elements. Say good-bye to the sweet imposters, and hello to a new life of health and well-being as you eliminate sugar forever from your diet!

6. Questions & Answers

Well, you've pretty well eliminated any possible sweetener I could use. Isn't there anything we can use to add extra sweetening to our food that isn't harmful?

If you are having fruit meals, you can add dried fruits for a concentrated sweet flavor. In connection with that, you can also consider date sugar as probably the least harmful of all concentrated sweeteners. Although made entirely from dates, date sugar is still not an optimum food because it is usually dried at a high temperature before being powdered.

Another difficulty with using any added sweetening to foods is that it generally leads to unsuitable food combinations, unless the foods are fruits (which probably don't require extra sweetening in the first place).

If you're eating a proper diet, high in fresh fruits, your sweet tooth will be well satisfied without any concentrated sugars.

My husband is a diabetic, and we've been using artificial sweeteners instead of refined sugars. We're going to stop now since we've learned about the carcinogenic (cancer-causing) properties of these additives. But can he start to eat a lot of fruit, since he is diabetic?

Fructose, as it exists in fruits, has a greater advantage for diabetics than other sugars. Unlike other sugars, fructose does not require insulin to get into the liver and the body cells. So when you eat fresh fruits high in fructose (natural sugar), there's no sudden demand for insulin, which diabetics cannot produce in adequate amounts. Similarly, fructose in fruits is also an ideal sugar for hypoglycemics. Remember, don't get this confused with the refined fructose (the white powder) which should not be used by diabetics, or anyone else for that matter.

I've heard so many good things about honey. I just can't believe it could be as bad for you as you say. We have our own bees, and I think they give us the best sweetener available.

People who have milk cows frequently make the same statement when they are told about the harmfulness of milk products. People that hunt and kill their own meat also think that because they are getting their product "fresh," it must somehow negate the bad aspects of the food.

I congratulate you on having bees around. They perform a very vital job in the garden and orchard by pollinating these plants. But why do you want to rob them in return and eat a food that was made by the bees for themselves alone to eat? Every species has its own food to which it is uniquely adapted. We humans are best suited for the fresh fruits and vegetables of the earth; that is our physiological nature. Bees are best suited to the honey that they make with their own body secretions.

It often takes a long time for the realization that cow's milk (another animal food) is not suitable for man to eat, even if it is fresh and unprocessed.

The simple truth is that if you are eating a natural and optimum diet of chiefly fresh, raw fruits and vegetables, you will have no desire for a concentrated sweetener like honey in the first place.

This may sound silly, but what about desserts or candies? Without some kind of sweetening, you take a lot of pleasure out of eating. How could I ever make a cake for instance?

> You're not going to like this answer, but you really shouldn't be eating or making these foods in the first place. I repeat, if you are eating a sufficient amount of fresh or dried fruits throughout the day, you're not going to want cakes, pies, cookies or candy. You can make a whole meal one big "dessert" if you have an all-fruit meal.
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> People desire pastries and other sweets when they have neglected the fruit part of their diet. However, don't use fruits just as a dessert for a conventional meal; this is a poor food combination. Make fruits a whole meal in themselves once, twice or three times a day. You'll never want pie or cake again once you've re-educated your taste buds.

Article #1: Why Honey Is A Harmful Food By T.C. Fry

It is, of course, true that honey is a wonderful food—for bees! The popularly fostered idea among health seekers that honey is a wholesome, nutritious and natural sweet for humans is fallacious.

Honey is the product of the bee's stomach. The bee ingests pollen from flowers and, in its stomach, mixes it with formic, manite and other acids. Then the honey is deposited in cone cells and, by the wind created by a multitude of bees wings, substantially dehydrated.

Without these acids and the drying, honey would readily ferment and prove unusable for the bee which must have a dependable food supply for up to eight months in some of the harsher climates. Because of these acids and dehydration, honey is impregnable to bacteria. It is rather poisonous in the human digestive tract.

As a food for us honey is woefully mineral and vitamin deficient. Humans require infinitely more food factors than bees.

While honey contains several very desirable sugars, these have been rendered toxic by the protective acids imparted to them by the bees. These acids are the bees' preservatives. Humans do not have the enzymes to break these acids down, as have the bees, and must rob their bodies of vital base-forming minerals to neutralize the acids.

When humans eat honey, it immediately begins to reabsorb moisture from the stomach and stomach flora. It destroys our symbiotic bacterial population wholesale. Several tablespoons of honey makes most people very sick.

In humans honey, more so than cane and beet sugars, is acid-forming and decalcifying. The body draws calcium from its teeth and bones, if necessary, to neutralize the acids *introduced* and *formed*.

Manite acid of honey is a protoplasmic poison. It interacts with protein and from this, forms alcohol, ammonia and carbonic acid.

As eaten, honey is an atrocious food. It is usually added to starches and proteins as a sweetener. It readily ferments when held up in the stomach with other longer-digesting foods. The byproducts alcohol, ammonia and carbonic acid are deleterious to human health.

Honey is, therefore, neither a nutritious nor a safe food. Life Scientists should not use honey as a part of

their diet.

Article #2: More About Honey By T.C. Fry

Ida Honorof publishes a newsletter entitled "Report to the Consumer." She usually goes into a subject in-depth and certainly she is one of the most outspoken persons in America on environmental concerns.

Anyway, in March she published an extensive article about honey. She recommends it in place of sugar. But, to her credit, she gives us a very frank appraisal of honey as a food and points out that better sugars are to be found in organically grown fruits.

First, she points out that, though pesticides are toxic to bees, not all bees succumb to toxic substances and that today's honeys cannot be called organic in any sense—most honey has pesticide residues in it. Bees gather this from flowers along with the nectar and pollen.

Then there's the matter of the nutritiousness of honey. It has only minute quantities of nutrients though it has "nutritional merit." Ms. Honorof says, "Many people converted to using honey, often excessively, despite the fact that to the human body, honey is hardly different than refined sugar—remember honey was meant for the bee." Which is to say that honey is not our natural food but natural food for the bee.

She quotes a famed bee specialist, Colonel Clair of Hawaii. Some of the data she quotes turns out to be very revealing, a lot more than honey promoters would appreciate.

First, most beekeepers rob their bees of practically all the honey and substitute for it water and sugar or wastes from candy factories. Anything sweet and cheap is substituted for the honey taken from the bees. The result is diseased bees. Further, the chemical industry has begun furnishing "medicines" or drugs for beekeepers just as they have furnished "medicines" for humans.

We Life Scientists have great concern for bees. They are our symbiotic partners in Nature. And the despoliation of bees must lead to our own—we are very much despoiled and depraved already.

It seems the worst enemies of bees these days are uninformed beekeepers who try to exploit bees to the maximum. They are paid for their hives by orchardists. Then they rob the bees of honey too. That doesn't mean the apiarists are making it rich but it does mean the poor bees are being meanly used, not only to their detriment but to ours! Of course this applies only to most beekeepers who supply in huge quantities the refined honey on supermarket shelves.

Ms. Honorof's article is in many ways revealing. One of the closing highlights is that honey, itself, is practically non-nutritious. It is the pollen grains in the honey that bear most of the nutrient complement.

Colonel Clair, her source of information, cautions against using heated honey altogether. He praises honey for its "antibiotic qualities."

That praise must be, to thinking people, damnation! For antibiotic means "against life." While they mean antibacterial, the word is correct, for an antibiotic is truly against all life.

But the clincher is the final admonition: "Honey must be eaten sparingly, in very small amounts." Our own admonition is: *If anything must be eaten in moderation or sparingly, it should not be eaten at all*.

Article #3: Blackstrap Molasses: Super Junk Food By T.C. Fry

The sales job the aluminum and chemical industries did to put their poisonous wastes, that is, fluoride compounds, into much of the nation's drinking water as a health measure must, by all standards, be called masterful even though fraudulent.

But, by comparison, you must positively applaud the sugar industry in selling its primary waste product to "health consumers" who pride themselves upon their food savvy, fastidiousness and awareness. In fact the sales job done on the "health food crowd" is so good the sugar industry gets more money from their poisonous waste than from the primary product, unwholesome white sugar.

The extent of the esteem in which blackstrap molasses is held merely points up the gullibility, credulousness and generally uncritical thinking with which "awakened" people accept "health claims" if they come from the "right" quarter.

Of course it is fitting that you and I should not have to be concerned with our food any more than the air we breathe. We should be able to accept all the food we eat as uncritically as the animals in their natural habitat eat the foods of their adaptation. *That's the way it should be!* For there are more productive, cultural and joyful pursuits in life than immersing ourselves in concerns about our stomach and what to put into it, our bowels and their business, our liver and its business, etc. Under the circumstances it is proper that we be deeply concerned. But our concern must be bolstered by deeper thinking than that which so readily endears such a pernicious product as blackstrap molasses.

Talk about candy, primarily a white sugar product, being a junk food, it can't even hold a candlestick to blackstrap molasses! Blackstrap is over 50% sucrose itself and that's the least of its drawbacks in the human diet! Anything bad that can be said about white sugar and candy goes double and triple for blackstrap molasses.

With candy at least you have sugar that has gone through only two or three cookings. And the chemicals used in its extraction are in the molasses, not in the sugar. Further, candy often has the virtue of having some nuts or nut butters, fruits, etc. in it. But, nevertheless, candy's reputation as "sugared junk" is well deserved.

But if candy is junk, then molasses is super junk! For molasses has more of the same evils that candy has plus some evils that candy and white sugar never had (unless it contains molasses which some candy and brown sugar does) and it has none of the "redeeming qualities" that some candy has.

I have several "health" publications that go into ecstasy over this "natural health food." A natural health food, mind you! And some mighty big names in the "health field" lend their endorsement—in fact almost all the big names in the popular health field would consider themselves remiss if they had not sung the praises of blackstrap molasses.

Before we get into the nitty gritty of just what blackstrap molasses represents and how this foul-tasting waste product came to be so popular, let's investigate that "natural" angle.

When we speak of a natural food we mean, of course, a natural food for humans.

Now Nature has been, on the scene for who knows how many eons of time. Blackstrap molasses has yet to reach its 300th birthday! *Nature came mightly late in providing us with this wonder food!* Nevertheless, let's put blackstrap molasses to the "natural" test.

1. TO BE NATURAL, a food must be one to which humans have adapted anatomically, physiologically and psychologically.
2. TO BE NATURAL, a food must be delicious to the palate of humans in its natural state.
3. TO BE NATURAL, a food must be eaten and relished in its living or raw state. Humans, like

animals, weren't endowed with cook stoves.

4. TO BE NATURAL, a food must have been nurtured to its finished state by Nature by strictly natural agencies.
5. TO BE NATURAL, a food must appeal to unperverted human gustatory senses, i.e., to our senses of smell, taste and sight such as does a beautiful redolent apple, for instance.
6. TO BE NATURAL, a food can be eaten alone and relished by unperverted palates.

These are only some of the criteria for a natural food of humans. How does molasses stack up against these yardsticks?

1. To begin with, humans haven't been eating molasses long. No adaptation whatsoever could be possible. Psychologically the product has no appeal at all except that we are conditioned to it as we are to other perversions. Children rebel against the stuff, something they don't do with, say, apples or bananas.
2. Molasses is not delicious to any normal palate and is repulsive to most who "eat it for health" reasons. Molasses has no natural state inasmuch as Nature never created such an abomination.
3. Of course Nature did not even get into the act on molasses—it is strictly a manufactured product. To represent that the sugar cane and beets from which it came is reared organically by natural means is a gross absurdity.
4. Molasses has no living state, for Nature did not create it. It is a waste product in the production of white sugar with all its evils plus a host of its own. Molasses is one of the most cooked substances you can buy. As our friends into Yoga would say—it has no prana or life force.
5. Blackstrap molasses is repulsive to our senses of smell of taste and sight.
6. And last, but not least, blackstrap molasses cannot be relished by itself by even the hardiest! A proper food of humans can be eaten as a meal. For instance we can make a mono meal of any one of these foods: apples, watermelons, cantaloupes, bananas, grapes, oranges, peaches, apricots, figs, dates, etc. And you can live well on one of these foods alone for several weeks with healthful results. Many people do! Can you imagine trying to live on a mono diet of blackstrap molasses for several weeks? Or some of its syrup cousins, including the highly touted maple syrup and honey?

So much for the "naturalness" of blackstrap molasses. It doesn't meet one single criterium as a natural food for humans. And certainly a food that is not natural to humans cannot be healthful for humans. Moreover, you wouldn't consider putting an unnatural, unhealthful food into your body, would you?

For more detailed information on molasses, see Lesson 35 - Junk Foods: A Case Study On Molasses